

REMARKS

Introduction

In response to the Office Action dated February 27, 2007, Applicants have amended claims 1, 3, and 5. Claims 6-8 have been cancelled. Claim 9 has been added. Support for amended claim 1 is found in, for example, pg. 6, line 23 – pg. 7, line 1. Support for amended claim 3 is found in, for example, pg. 7, lines 16-20. Support for amended claim 5 is found in, for example, pg. 7, lines 21-24. Support for newly added claim 9 is found in, for example, pg. 6, line 23 – pg. 7, line 1. Care has been taken to avoid the introduction of new matter. In view of the foregoing amendments and the following remarks, Applicants respectfully submit that all pending claims are in condition for allowance.

Claim Rejection Under 35 U.S.C. § 102

Claims 1-4 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 5,578,863 (hereinafter DePoorter). Amended claim 1 recites, "...the semiconductor laser element having an active region formed of a gallium nitride-based crystal."

The Office Action asserts that DePoorter discloses an active layer made of AlGaAs based crystal. The AlGaAs- and AlGaInP-based crystals discussed in DePoorter operate in the infrared and red wavelength bands. The laser diodes including AlGaAs- and AlGaInP-based crystals of DePoorter emit radiation with a wavelength between 0.6 and 0.9 μm (col. 2, lines 57-62).

In contrast, it is known by a person skilled in the art that the GaN-based crystals operate in the short and blue wavelength bands. Similarly, the GaN-based crystals emit radiation having a wavelength between 0.4 – 0.5 μm . The AlGaAs- and AlGaInP-based crystals of DePoorter are different from the claimed gallium nitride-based crystal.

Thus, DePoorter fails to disclose, at a minimum, "...the semiconductor laser element having an active region formed of a gallium nitride-based crystal," as recited in amended claim 1.

Claim Rejection Under 35 U.S.C. § 103

Claims 5-7 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over DePoorter in view of U.S. Patent 5,770,473 (hereinafter Hall). Claim 5 depends from claim 1 and includes all of the features of that claim plus additional features, which are not taught or suggested by the cited references. Claims 6 and 7 are cancelled. Therefore, for at least these reasons, it is respectfully submitted that claim 5 also patentably distinguishes over the cited references.

New Claim

New dependent claim 9 recites, "...wherein the gallium nitride-based crystal is an AlGa_N- or InGa_N-based crystal." Nothing in the cited references teach or suggest the described subject matter. It is submitted that this new claim distinguishes over the cited references.

Conclusion

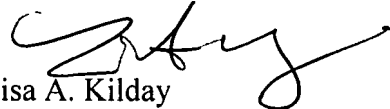
In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

Application No.: 10/531,391

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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